GSP-1
File copy

BLUE ROCK
ENVIRONMENTAL, INC.

Mr. Larry Olson
Tehama County Department of Environmental Health
633 Washington Street, Room 36
Red Bluff, CA 96080

January 14, 2005

Re: **First Quarter 2005 Groundwater Monitoring Report**
Griswold Siblings Property
1074 Highway 99W
Corning, CA
APN 69-210-58

Dear Mr. Olson,

This report presents the results of the recent groundwater monitoring activities at 1074 Highway 99W, Corning, California (site) (Figure 1), and was prepared on behalf of Ms. June Shook (contact for the Griswold Siblings) by Blue Rock Environmental, Inc. (Blue Rock). This report presents the results of the third of four groundwater monitoring events that were requested by the Tehama County Department of Environmental Health (TCDEH) in a letter dated October 2, 2003, and proposed in Blue Rock's *Preliminary Subsurface Investigation Workplan* dated December 17, 2003.

Background

Site Background

The site is located at 1074 Highway 99W in Corning, Tehama County, California (Figure 1). The site operated as a fuel service station from as early as 1938 through 1963. In 1963, the operation of the station was terminated, and the above-ground related structures were demolished. In late 2001 or early 2002 when they considered marketing the property for sale, the current property owners were advised that the underground storage tanks (USTs) may have been left in the ground despite the fact that the station was demolished. In 2002, exploratory excavations discovered the USTs.

UST Removal History

In August and September 2003, the UST system was removed. Removal activities consisted of removing three (3) 1,000-gal. gasoline USTs, one (1) 1,000-gal. diesel UST, and associated piping and two (2) dispensers (Figure 2). A total of 16 soil samples were collected and analyzed from beneath former USTs, piping, and dispensers. Soil samples were analyzed for concentrations of total petroleum hydrocarbons as diesel (TPHd), TPH as gasoline (TPHg), Seven Fuel Oxygenates (MTBE, TBA, ETBE, DIPE, TAME, Methanol, and Ethanol), benzene, toluene, ethyl-benzene, xylenes (BTEX), and Total Lead. Based on observations at the time of the UST removal and soil sample analytical results, the primary impact to the subsurface by the USTs was TPHd. A total of eight samples contained detectable concentrations of TPHd, with

the greatest concentration beneath the former diesel UST at 1,900 mg/kg in the northern tank bed. Only the two samples collected from beneath the diesel UST contained detectable levels of TPHg, from 1.1 to 39 mg/kg, and one of these sample was also the only sample to contain detectable levels of TEX, from 0.0055 to 0.016 mg/kg. These gasoline range detections may be the result of diesel impact, as the light end of diesel can overlap into the range quantified for TPHg, and aromatic hydrocarbons (i.e. TEX) are present in diesel at very low levels. It is noteworthy that neither TPHg nor TEX were detected in any of the other 14 soil samples. Additionally, neither benzene, MTBE, TBA, ETBE, DIPE, TAME, Methanol, nor Ethanol were detected in any of the 16 samples collected. Based on these data, gasoline range hydrocarbons and oxygenate additives did not appear to be compounds of concern at the site. Total Lead was detected in all soil samples collected at concentrations ranging from 1.71 to 18.5 mg/kg. These concentrations fall within the range of native background levels (between approximately 10 and 20 mg/kg) for the area, as reported by the U.S. Geological Survey (Professional Paper 1270). Thus, the total lead concentrations detected during UST removal likely represent native background concentrations.

Approximately 79 tons of soil excavated for UST removal were chemically characterized and transported to Bio-Industries in Red Bluff for disposal and treatment. The only compounds detected in the characterization samples were TPHd (35 to 45 mg/kg) and Total Lead (23.4 to 27.0 mg/kg). Neither TPHg, BTEX, nor the Seven Fuel Oxygenates were detected in the characterization samples.

Investigation History

In July 2004, Blue Rock supervised the drilling and installation of three groundwater monitoring wells (MW-1 through MW-3) proximal to the former fuel islands and the former northern UST bed, where previous TPHd impact had been detected. Results of the investigation indicated that the site is underlain by soil types ranging from silty clays to silty gravels. Two permeable zones were noted below the site: (1) a clayey gravel unit from 12 to 19 feet below ground surface (bgs), and (2) a sand/gravel unit from 24 to 37 feet bgs. The two permeable zones are separated by a clay from 19 to 24 feet bgs . The upper permeable zone did not yield water in the borings at the time of drilling. Therefore, the wells were screened in the lower permeable zone, where water stabilized at a depth of approximately 31 feet during drilling. Initial results indicate that groundwater in that unit flows toward the northeast.

Soil samples collected as part of the investigation were free of detectable levels of TPHd, TPHg, BTEX, and MTBE. Using cumulative sampling data, Blue Rock estimated the residual TPHd sorbed-phase mass as 253 lbs (or 41 gal of diesel) at a depth of approximately 6 to 13 feet bgs around and below the former northern UST system. Blue Rock concluded that this sorbed-phase TPHd mass is relatively low compared to other LUFT sites requiring active mitigation. Additionally, this limited sorbed-phase mass does not appear to represent a significant secondary source of groundwater contamination because the groundwater samples in that area are essentially free of detectable dissolved-phase contaminants.

Groundwater samples collected as part of the investigation were free of detectable levels of TPHd, TPHg, BTEX, Seven Fuel Oxygenates (MTBE, TBA, ETBE, DIPE, TAME, Methanol, Ethanol), and Total Lead, except for benzene at 0.69 µg/L in MW-2 (which is below the Maximum Contaminant Level for drinking water of 1 µg/L). Detailed results of the investigation were presented in Blue Rock's *Preliminary Subsurface Investigation Report* dated July 27, 2004. Monitoring well construction data is summarized in Table 1 and cumulative groundwater elevation and analytical data is summarized in Table 2.

Groundwater Monitoring History

Quarterly groundwater monitoring was initiated after well installation and sampling activities. The results of the October 2004 monitoring event indicated that neither TPHd, TPHg, BTEX, nor MTBE were detected groundwater samples collected from the monitoring wells.

Groundwater Monitoring Field and Laboratory Methods

On January 6, 2005, all three wells (MW-1 through MW-3) were monitored. An electronic water level indicator was used to gauge depth to water in each well, accurate to within ±0.01-foot. All wells were checked for the presence of light non-aqueous phase liquid (LNAPL) petroleum prior to purging. No measurable thicknesses of LNAPL were observed on groundwater in any of the wells.

In preparation for sampling, the wells were purged of groundwater until sampling parameters (temperature, pH, and conductivity) stabilized.

Following recovery of water levels to at least 80% of their static levels in the other wells, groundwater samples were collected from the wells using disposable polyethylene bailers and transferred to laboratory supplied containers. Sample containers were labeled, documented on a chain-of-custody form, and placed on ice in a cooler for transport to the project laboratory.

Purging instruments were cleaned between use by an Alconox® wash followed by double rinse in clean tap water to prevent cross-contamination. Purge and rinseate water was stored on-site in labeled 55-gallon drums pending future removal and disposal.

Groundwater monitoring and well purging information is presented on Gauge Data/Purge Calculations and Purge Data sheets (attached).

Groundwater samples were analyzed by Kiff Analytical LLC (Kiff), a DHS-certified laboratory, located in Davis, California, for the following analytes:

- TPHd by EPA Method 8015M after silica-gel clean-up by EPA Method 3630C
- TPHg, BTEX, and MTBE by EPA Method 8260B.

Groundwater Monitoring Results

Groundwater Flow Direction and Gradient

Static groundwater in the wells was present beneath the site at depths ranging from approximately 32.5 to 33 feet bgs. Gauging data, combined with well elevation data, were used to calculate groundwater elevations, flow direction, and gradient. The groundwater flow direction was calculated to be toward the south-southeast at a gradient of 0.01 ft/ft (Figure 3).

Groundwater levels have risen approximately 4 feet with the onset of winter precipitation since the last monitoring event in October 2004. It is noteworthy that the groundwater flow direction calculated for this event has turned approximately 180° from previous flow directions (calculated for the summer and fall of last year). The groundwater flow direction calculated for this event is more consistent with regional topography, suggesting that the flow direction observed during the summer and fall may be affected by anthropogenic influences (i.e. regional pumping of water wells, irrigation practices, etc.).

Groundwater Contaminant Analytical Results

Neither TPHd, TPHg, BTEX, nor MTBE were detected above method reporting limits in any of the groundwater samples analyzed during this event. These results are consistent with past sampling efforts completed in July and October 2004.

Groundwater sample analytical results are shown graphically on Figure 4, and cumulative groundwater sample analytical results are summarized in Table 2. Copies of the laboratory report and chain-of-custody form are attached.

Project Status

This report presents the third of four groundwater monitoring events requested by the TCDEH. These results confirm initial data which indicate that groundwater below the site is not impacted by detectable levels of diesel or gasoline hydrocarbons directly below former UST components.

The final of the four proposed groundwater monitoring events is scheduled for April 2005. Assuming that the monitoring results are consistent with previous results, Blue Rock will recommend regulatory closure and well destruction.

The Underground Storage Tank Clean-up Fund (Fund) has currently denied eligibility for this site; however, a request for a final decision was recently submitted to the Fund. At the time this report was prepared, a response to that request has not yet been received from the Fund.

Certification

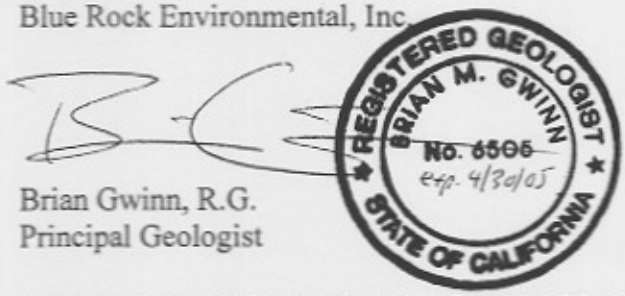
This report was prepared under the supervision of a California Registered Geologist at Blue Rock. All statements, conclusions, and recommendations are based upon published results from past consultants, field observations by Blue Rock, and analyses performed by a state-certified laboratory as they relate to the time, location, and depth of points sampled by Blue Rock. Interpretation of data, including spatial distribution and temporal trends, are based on commonly used geologic and scientific principles. It is possible that interpretations, conclusions, and recommendations presented in this report may change, as additional data become available and/or regulations change.

Information and interpretation presented herein are for the sole use of the client and regulating agency. The information and interpretation contained in this document should not be relied upon by a third party.

The service performed by Blue Rock has been conducted in a manner consistent with the level of care and skill ordinarily exercised by members of our profession currently practicing under similar conditions in the area of the site. No other warranty, expressed or implied, is made.

If you have any questions regarding this project, please contact at (650) 522-9292.

Sincerely,
Blue Rock Environmental, Inc.



Brian Gwinn, R.G.
Principal Geologist

Attachments: Well Construction Data (Table 1)
Groundwater Elevations and Analytical Data (Table 3)
Site Location Map (Figure 1)
Site Plan (Figure 2)
Groundwater Elevation Map – 01/06/05 (Figure 3)
Dissolved-Phase Contaminant Map – 01/06/05 (Figure 4)
Blue Rock Well Gauging Data/Purge Calculations and Well Purging Data
Laboratory Report and Chain-of-Custody Form

cc: June Shook, 8530 Strong Ave., Orangevale, CA 95662
James Hahn, 7409 Tennessee Lane, Vancouver, WA 98664
Eric Rapport, CVRWQCB, 415 Knollcrest Dr., Ste. 100, Redding, CA 96002

TABLE 1
Well Construction Data
Griswold Sibling Property
1074 Highway 99W
Corning, CA

Well ID	Date Installed	Total Boring Depth (ft bgs)	Casing Diameter (inches)	Screen Depth (ft bgs)	Sandpack Depth (ft bgs)	Bentonite Depth (ft bgs)	Grout Depth (ft bgs)
MW-1	7/6/04	40	2	25 - 40	23 - 40	21 - 23	0 - 21
MW-2	7/7/04	40	2	27 - 40	26 - 40	24 - 26	0 - 24
MW-3	7/6/04	40	2	25 - 40	23 - 40	21 - 23	0 - 21

Notes:
ft bgs Feet below ground surface.

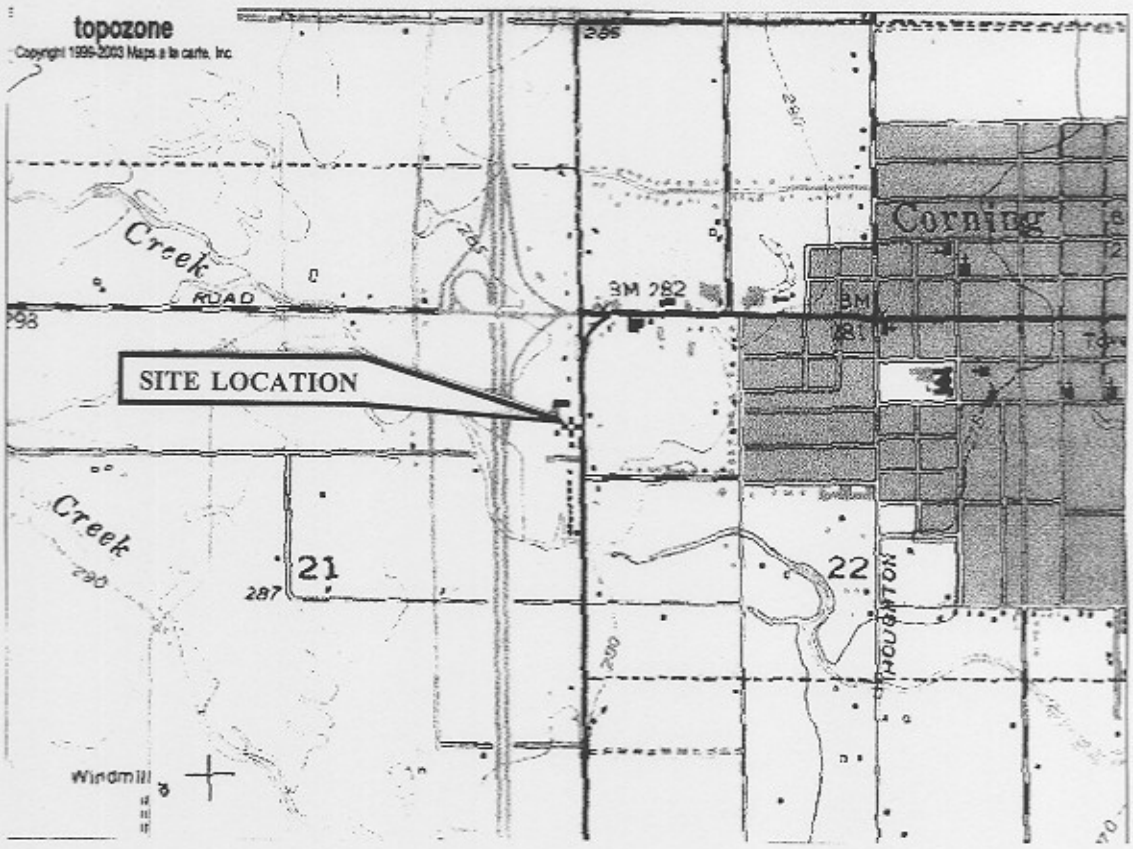
TABLE 2
Groundwater Elevations and Analytical Data
Griswold Siblings Property
1074 Highway 99W
Corning, CA

Well No.	Sample Depth (ft bgs)	Sample Date	TOC (ft MSL)	DTW (ft)	GWE (ft MSL)	TPHd w/sgcu (µg/L)	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)	TBA (µg/L)	DIPE, ETBE, TAME (µg/L)	Methanol (µg/L)	Ethanol (µg/L)	Total Pb (µg/L)
MW-1	25 - 40	7/13/04	284.72	30.65	254.07	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<0.5	<50	<5	<10
		10/5/04	284.72	36.98	247.74	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5	---	---	---	---	---
		11/6/05	284.72	33.11	251.61	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5	---	---	---	---	---
MW-2	27 - 40	7/13/04	284.46	31.33	253.13	<50	<50	0.69	<0.5	<0.5	<0.5	<0.5	<5	<0.5	<50	<5	<10
		10/5/04	284.46	37.99	246.47	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5	---	---	---	---	---
		11/6/05	284.46	32.44	252.02	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5	---	---	---	---	---
MW-3	25 - 40	7/13/04	284.63	29.72	254.91	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<0.5	<50	<5	<10
		10/5/04	284.63	36.25	248.38	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5	---	---	---	---	---
		11/6/05	284.63	32.97	251.66	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5	---	---	---	---	---
MCL	---	---	---	---	---	***100*** [b]	***50*** [b]	***1***	***42*** [b]	***29*** [b]	***17*** [b]	***5*** [b]	---	---	---	---	***15*** [c]

Notes:

Sample Depth	Indicates screen depth interval or depth of grab groundwater sample.
TOC	Top of casing relative to feet above mean sea level (ft MSL).
DTW	Depth to groundwater below top of casing in feet.
GWE	Groundwater Elevation (TOC-DTW) in ft MSL.
TPHd w/sgcu	Total petroleum hydrocarbons as diesel by EPA Method 8015M with silica-gel clean-up by EPA Method 3630C.
TPHg	Total petroleum hydrocarbons as gasoline by EPA Method 8260B.
BTEX	Benzene, toluene, ethylbenzene, and xylenes by EPA Method 8260B.
MTBE	Methyl tert-butyl ether by EPA Method 8260B.
TBA, ETBE	Tert-butanol, ethyl tert-butyl ether,
DIPE, TAME	di-isopropyl ether, and tert-amyl methyl ether by EPA Method 8260B.
Total Pb	Total lead by EPA Method 3005 Filt/6010B (samples collected in unpreserved containers and filtered prior to lab analysis).
<###	Not detected at or above the indicated reporting limit.
µg/L	Micrograms per liter.
MCL	California Maximum Contaminant Level for drinking water. Primary MCL or Secondary MCL shown, whichever is lower.
[b]	California Secondary Drinking Water Standard for Taste and Odor Threshold.
[c]	Regulatory Action Level for drinking water.

Bold indicates results greater than MCL or Secondary Drinking Water Standard.



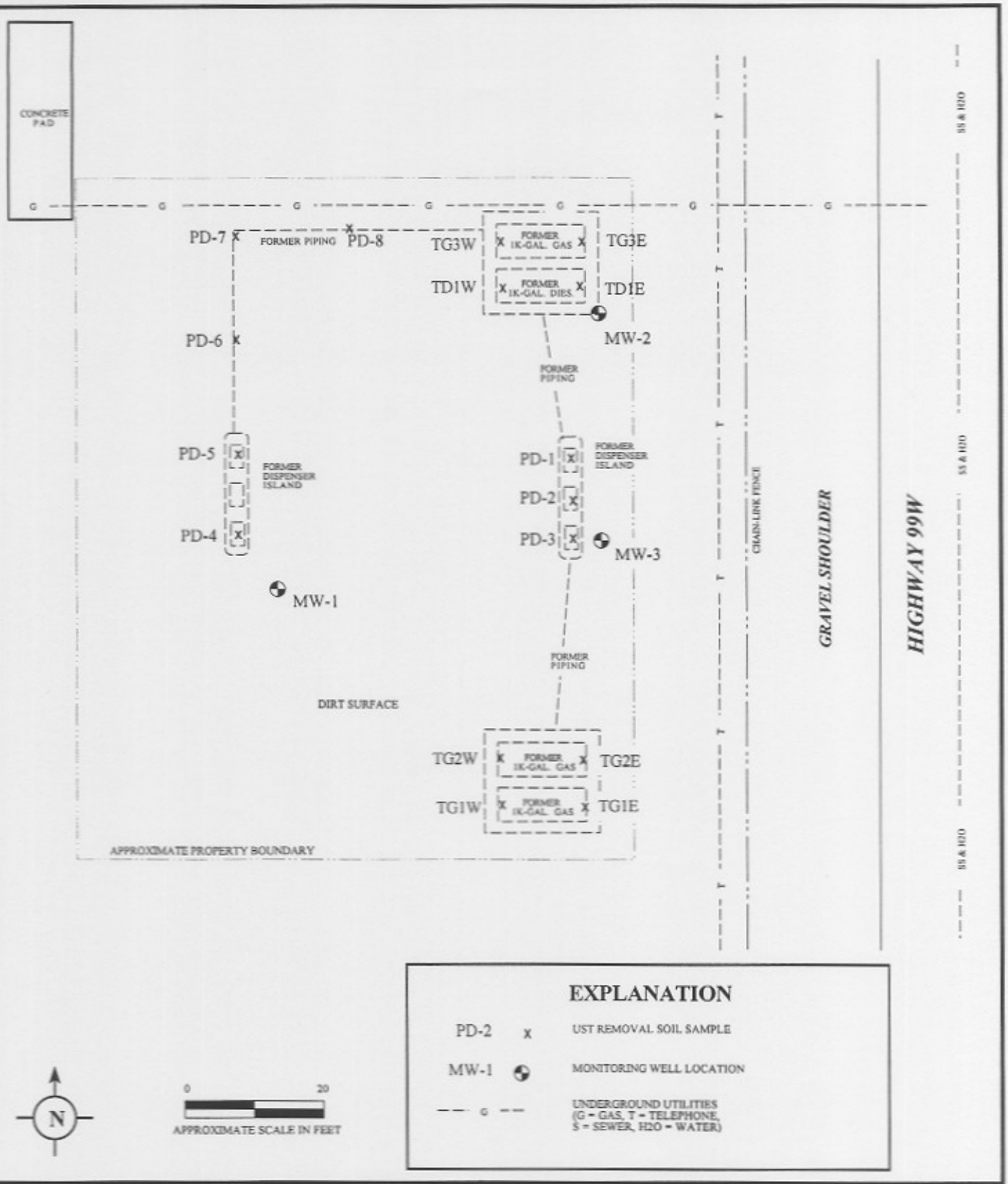
SOURCE: topozone.com

SITE LOCATION MAP

1074 Highway 99W
Corning, California

BLUE ROCK ENVIRONMENTAL, INC.

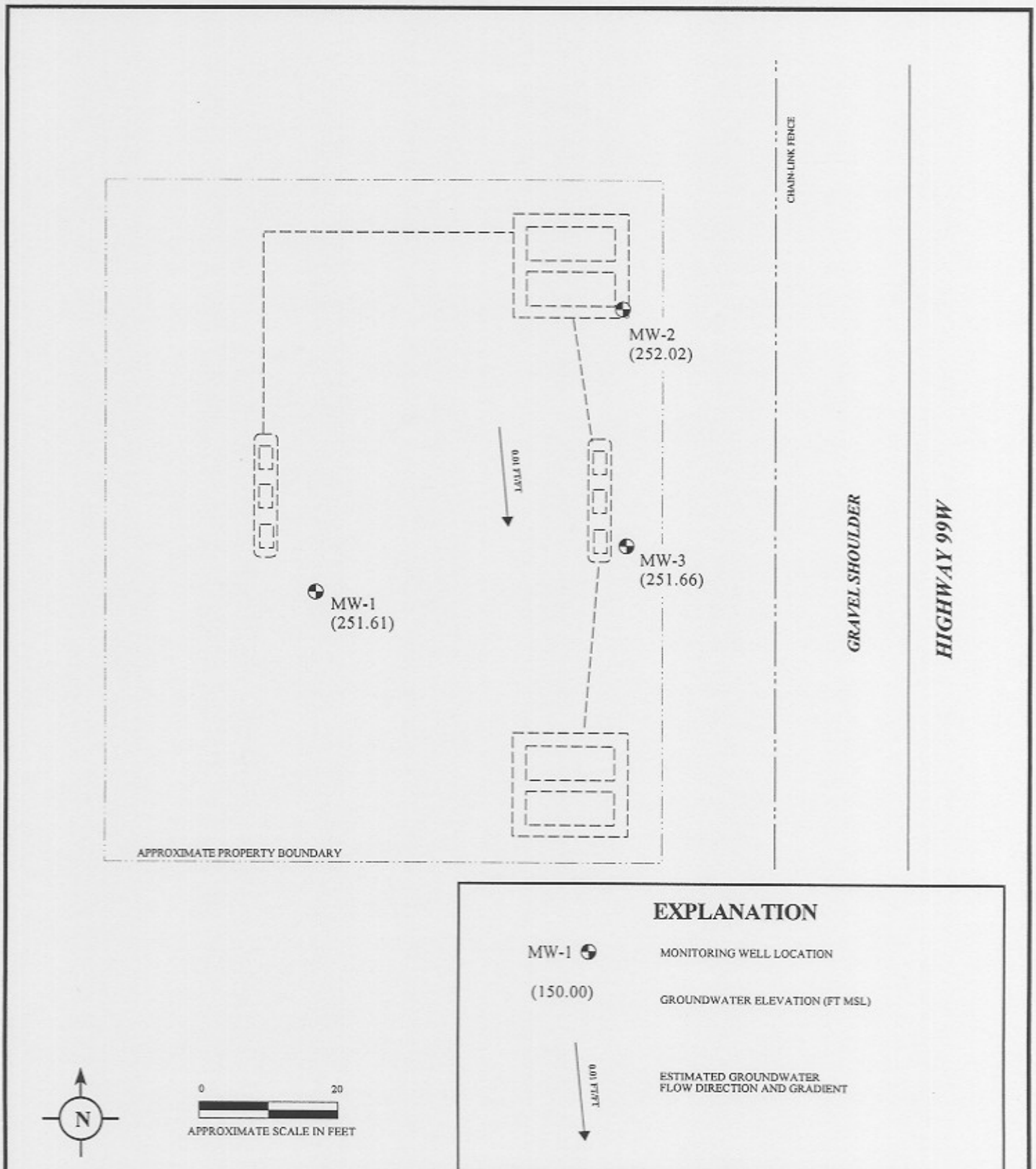
Project No.	Figure Date	Figure
GSP-1	**12/03**	**1**



SITE PLAN
Griswold Siblings Property
1074 Highway 99W
Corning, CA

BLUE ROCK ENVIRONMENTAL, INC.

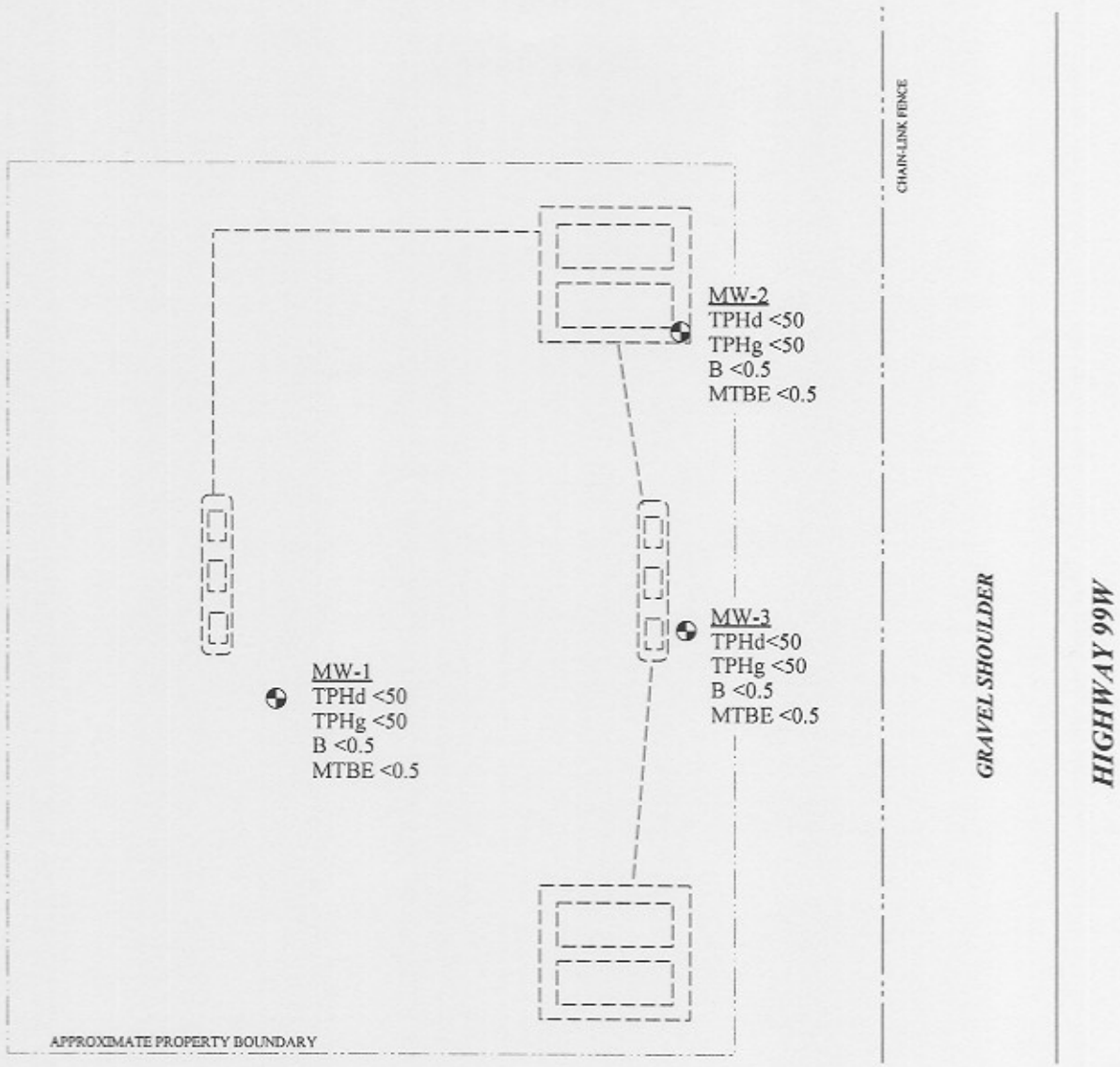
Project No.	Figure Date	Figure
GSP-1	**7/04**	**2**



GROUNDWATER ELEVATION MAP
01/06/05
Griswold Siblings Property
1074 Highway 99W
Corning, CA

BLUE ROCK ENVIRONMENTAL, INC.

Project No.	Figure Date	Figure
GSP-1	**01/05**	**3**



EXPLANATION

MW-1 — MONITORING WELL LOCATION

MW-1
TPHd <50
TPHg <50
B <0.5
MTBE <0.5

TPHd, TPHg, BENZENE, AND MTBE CONCENTRATIONS (µg/L)

N

0 20

APPROXIMATE SCALE IN FEET

DISSOLVED-PHASE CONTAMINANT MAP
01/06/05
Griswold Siblings Property
1074 Highway 99W
Corning, CA

BLUE ROCK ENVIRONMENTAL, INC.

Project No.	Figure Date	Figure
GSP-1	**01/05**	**4**

WELL GAUGING DATA/PURGE CALCULATIONS

Job No.: GSP-1 Location: 1074 Highway 99 W Corning CA Date: 01-06-05 Tech(s): SR

WELL NO.	DIAM (in)	DTB (ft)	DTW (ft)	ST (ft)	CV (gal)	PV (gal)	SPL (ft)	NOTES
MW-1	2	40.40	33.11	7.29	1.16	3.49		
MW-2	2	40.30	32.44	7.86	1.25	3.77		
MW-3	2	40.40	32.97	7.43	1.18	3.56		

Explanation:
DIAM = Well Diameter
DTB = Depth to Bottom
DTW = Depth to Water
ST = Saturated Thickness (DTB-DTW)
CV = Casing Volume (ST x cf)
PV = Purge Volume (standard 3 x CV, well development 10 x CV)
SPL = Thickness of Separate Phase Liquid

Conversion Factors (cf)
1 inch diameter well cf = 0.04 gal/ft
2 inch diameter well cf = 0.16 gal/ft
4 inch diameter well cf = 0.65 gal/ft
6 inch diameter well cf = 1.44 gal/ft

BLUE ROCK ENVIRONMENTAL, INC.
1169 Chess Drive, Suite C, Foster City, CA 94404 Phone (650) 522-9292 Fax (650) 522-9259

WELL PURGING DATA

SHEET 1 OF 1

Job No.: GSP-1 **Location:** [redacted] Highway 9[redacted] Corning Ca. **Date:** 1-6-05 **Tech:** SR

WELL No.	TIME	VOLUME (gal.)	TEMP. (deg. F.)	COND. (µS/cm)	pH	ST: 1350
MW-1	1249	.87	[redacted]	552	[redacted]	Sample for: (circle)
Calc. purge	1254	1.74	56.7	547	6.25	TPHg TPHd 8010
volume	1258	2.61	58.[redacted]	540	6.44	BTEX Other MTBE
3.49	1330	3.49	58.3	567	[redacted]	Purging Method:
						PVC bailer / Pump
COMMENTS: color, turbidity, recharge, sheen						Sampling Method:
light brown, high, [redacted]						Dedicated / Disposable bailer

WELL No.	TIME	VOLUME (gal.)	COND. (mS/cm)	TEMP. (deg. F.)	pH	ST: 1410
MW-3	1308	.89	[redacted]	64.3	5.35	Sample for:
Calc. purge	1314	1.78	522	68.8	6.72	TPHg TPHd 8010
volume	1316	2.67	473	59.7	6.80	BTEX Other
3.56	1318	3.56	485	69.7	6.87	Purging Method:
						PVC bailer / Pump
COMMENTS: color, turbidity, recharge, sheen						Sampling Method:
light brown, high, good						Dedicated / Disposable bailer

WELL No.	TIME	VOLUME (gal.)	COND. (mS/cm)	TEMP. (deg. F.)	pH	ST: 1400
MW-2	1325	.94	635	69.0	6.54	Sample for:
Calc. purge	1328	1.88	607	68.5	6.67	TPHg TPHd 8010
volume	1330	2.85	598	69.5	6.53	BTEX Other MTB
3.77	1333	3.77	588	69.2	6.95	Purging Method:
						PVC bailer / Pump
COMMENTS: color, turbidity, recharge, sheen						Sampling Method:
light brown, high, [redacted] fair						Dedicated / Disposable bailer

BLUE ROCK ENVIRONMENTAL, INC., 1169 CHESS DR., STE.C, FOSTER CITY, CA 94404
TEL. (650) 522-9292 • FAX (650) 522-9259

KIFF ANALYTICAL LLC

Report Number : 41866
Date : 1/14/2005

Brian Gwinn
Blue Rock Environmental, Inc.
1169 Chess Drive Suite C
Foster City, CA 94404

Subject : 3 Water Samples
Project Name : Griswold Siblings Property
Project Number : GSP-1

Dear Mr. Gwinn,

Chemical analysis of the samples referenced above has been completed. Summaries of the data are contained on the following pages. Sample(s) were received under documented chain-of-custody. US EPA protocols for sample storage and preservation were followed.

Kiff Analytical is certified by the State of California (# 2236). If you have any questions regarding procedures or results, please call me at 530-297-4800.

Sincerely,

Joel Kiff

KIFF ANALYTICAL LLC

Report Number : 41866
Date : 1/14/2005

Project Name : **Griswold Siblings Property**
Project Number : **GSP-1**

Sample : **MW-1** Matrix : Water Lab Number : 41866-01
Sample Date :1/6/2005

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.50**	0.50	ug/L	EPA 8260B	1/8/2005
Toluene	**< 0.50**	0.50	ug/L	EPA 8260B	1/8/2005
Ethylbenzene	**< 0.50**	0.50	ug/L	EPA 8260B	1/8/2005
Total Xylenes	**< 0.50**	0.50	ug/L	EPA 8260B	1/8/2005
Methyl-t-butyl ether (MTBE)	**< 0.50**	0.50	ug/L	EPA 8260B	1/8/2005
TPH as Gasoline	**< 50**	50	ug/L	EPA 8260B	1/8/2005
Toluene - d8 (Surr)	95.5		% Recovery	EPA 8260B	1/8/2005
4-Bromofluorobenzene (Surr)	98.2		% Recovery	EPA 8260B	1/8/2005
TPH as Diesel (Silica Gel)	**< 50**	50	ug/L	M EPA 8015	1/12/2005

Sample : **MW-2** Matrix : Water Lab Number : 41866-02
Sample Date :1/6/2005

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.50**	0.50	ug/L	EPA 8260B	1/8/2005
Toluene	**< 0.50**	0.50	ug/L	EPA 8260B	1/8/2005
Ethylbenzene	**< 0.50**	0.50	ug/L	EPA 8260B	1/8/2005
Total Xylenes	**< 0.50**	0.50	ug/L	EPA 8260B	1/8/2005
Methyl-t-butyl ether (MTBE)	**< 0.50**	0.50	ug/L	EPA 8260B	1/8/2005
TPH as Gasoline	**< 50**	50	ug/L	EPA 8260B	1/8/2005
Toluene - d8 (Surr)	101		% Recovery	EPA 8260B	1/8/2005
4-Bromofluorobenzene (Surr)	99.6		% Recovery	EPA 8260B	1/8/2005
TPH as Diesel (Silica Gel)	**< 50**	50	ug/L	M EPA 8015	1/12/2005

Approved By: Joel Kiff

2795 2nd St., Suite 300 Davis, CA 95616 530-297-4800

KIFF ANALYTICAL LLC

Report Number : 41866
Date : 1/14/2005

Project Name : **Griswold Siblings Property**
Project Number : **GSP-1**

Sample : **MW-3** Matrix : Water Lab Number : 41866-03
Sample Date :1/6/2005

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.50**	0.50	ug/L	EPA 8260B	1/8/2005
Toluene	**< 0.50**	0.50	ug/L	EPA 8260B	1/8/2005
Ethylbenzene	**< 0.50**	0.50	ug/L	EPA 8260B	1/8/2005
Total Xylenes	**< 0.50**	0.50	ug/L	EPA 8260B	1/8/2005
Methyl-t-butyl ether (MTBE)	**< 0.50**	0.50	ug/L	EPA 8260B	1/8/2005
TPH as Gasoline	**< 50**	50	ug/L	EPA 8260B	1/8/2005
Toluene - d8 (Surr)	103		% Recovery	EPA 8260B	1/8/2005
4-Bromofluorobenzene (Surr)	98.2		% Recovery	EPA 8260B	1/8/2005
TPH as Diesel (Silica Gel)	**< 50**	50	ug/L	M EPA 8015	1/12/2005

Approved By: Joel Kiff

2795 2nd St., Suite 300 Davis, CA 95616 530-297-4800

Report Number : 41866

Date : 1/14/2005

QC Report : Method Blank Data

Project Name : **Griswold Siblings Property**

Project Number : **GSP-1**

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
TPH as Diesel (Silica Gel)	< 50	50	ug/L	M EPA 8015	1/11/2005
Benzene	< 0.50	0.50	ug/L	EPA 8260B	1/8/2005
Toluene	< 0.50	0.50	ug/L	EPA 8260B	1/8/2005
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	1/8/2005
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	1/8/2005
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	1/8/2005
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	1/8/2005
Toluene - d8 (Surr)	96.1		%	EPA 8260B	1/8/2005
4-Bromofluorobenzene (Surr)	99.0		%	EPA 8260B	1/8/2005
Benzene	< 0.50	0.50	ug/L	EPA 8260B	1/8/2005
Toluene	< 0.50	0.50	ug/L	EPA 8260B	1/8/2005
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	1/8/2005
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	1/8/2005
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	1/8/2005
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	1/8/2005
Toluene - d8 (Surr)	102		%	EPA 8260B	1/8/2005
4-Bromofluorobenzene (Surr)	99.7		%	EPA 8260B	1/8/2005

Parameter	asured lue	Method Reporting Limit	Units	Analysis Method	Date Analyzed

ved By: Joel Kiff

KIFF ANALYTICAL, LLC

2795 2nd St, Suite 300 Davis, CA 95616 530-297-

Report Number : 41866

QC Report : Matrix Spike/ Matrix Spike Duplicate

Date : 1/14/2005

Project Name : **Griswold Siblings**

Project Number : **GSP-1**

Parameter	Spiked Sample	Sample Value	Spike Level	Spike Dup. Level	Spiked Sample Value	Duplicate Spiked Sample Value	Units	Analysis Method	Date Analyzed	Spiked Sample Percent Recov.	Duplicate Spiked Sample Percent Recov.	Relative Percent Diff.	Spiked Sample Percent Recov. Limit	Relative Percent Diff. Limit
TPH as Diesel	Blank	<50	1000	1000	835	870	ug/L	M EPA 8015	1/11/05	83.5	87.0	4.08	70-130	25
Benzene	41851-09	<0.50	40.0	40.0	37.9	36.6	ug/L	EPA 8260B	1/8/05	94.8	91.4	3.56	70-130	25
Toluene	41851-09	<0.50	40.0	40.0	37.3	33.3	ug/L	EPA 8260B	1/8/05	93.2	83.4	11.2	70-130	25
Tert-Butanol	41851-09	<5.0	200	200	207	191	ug/L	EPA 8260B	1/8/05	104	95.6	8.14	70-130	25
Methyl-t-Butyl Ether	41851-09	<0.50	40.0	40.0	37.5	37.7	ug/L	EPA 8260B	1/8/05	93.7	94.3	0.619	70-130	25
Benzene	41847-02	<0.50	40.0	40.0	39.7	38.2	ug/L	EPA 8260B	1/8/05	99.2	95.6	3.69	70-130	25
Toluene	41847-02	<0.50	40.0	40.0	41.6	40.1	ug/L	EPA 8260B	1/8/05	104	100	3.65	70-130	25
Tert-Butanol	41847-02	<5.0	200	200	206	206	ug/L	EPA 8260B	1/8/05	103	103	0.0491	70-130	25
Methyl-t-Butyl Ether	41847-02	<0.50	40.0	40.0	34.6	34.4	ug/L	EPA 8260B	1/8/05	86.4	86.0	0.530	70-130	25

Approved By: Joel Kiff

KIFF ANALYTICAL, LLC

2795 2nd St, Suite 300 Davis, CA 95616 530-297-4800

Report Number : 41866

QC Report : Laboratory Control Sample (LCS)

Date : 1/14/2005

Project Name : **Griswold Siblings**

Project Number : **GSP-1**

Parameter	Spike Level	Units	Analysis Method	Date Analyzed	LCS Percent Recov.	LCS Percent Recov. Limit
Benzene	40.0	ug/L	EPA 8260B	1/8/05	95.6	70-130
Toluene	40.0	ug/L	EPA 8260B	1/8/05	98.2	70-130
Tert-Butanol	200	ug/L	EPA 8260B	1/8/05	104	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	1/8/05	99.6	70-130
Benzene	40.0	ug/L	EPA 8260B	1/8/05	93.3	70-130
Toluene	40.0	ug/L	EPA 8260B	1/8/05	99.2	70-130
Tert-Butanol	200	ug/L	EPA 8260B	1/8/05	96.9	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	1/8/05	87.5	70-130

Approved By: Joel Kiff

KIFF ANALYTICAL, LLC

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KIFF ANALYTICAL LLC

2795 2nd Street, Suite 300
Davis, CA 95616
Lab: 530.297.4800
Fax: 530.297.4808

lo. 41966 Page 1 of 1

Chain-of-Custody and Analysis Request

Project Contact (Hardcopy or PDF To): Brian Gwinn

California EDF Report? [X] Yes [ ] No

Company/Address: Blue Rock Env. 94404
1169 Chess Dr. #C, Foster City CA

Recommended but not mandatory to complete this section:
Sampling Company Log Code: BR-S-F

Phone No.: 650.522-9292
FAX No.: 650-522-9259

Global ID: T-0-6-1-0-3-1-6-0-5-1

Project Number: GSP-1
P.O. No: —

EDF Deliverable To (Email Address): brian@blverockenv.com

Project Name: Griswold Siblings Property

Sampler Signature: Scott Robertson

Project Address: 1074 Hwy 99W Corning CA

Analysis Request: Atuest

TAT: 12 hr / 24 hr / 48 hr / 72 hr (STD)

Sample Designation	Sampling: Date	Sampling: Time	Container: 40 ml VOA	Container: SLEEVE	Preservative: HCl	Preservative: HNO_3	Preservative: ICE	Preservative: NONE	Matrix: WATER	Matrix: SOIL	BTEX (8021B)	BTEX/TPH Gas/MTBE (8021B/M8015)	TPH as Diesel (M8015) (w/ Si. Gel)	TPH as Motor Oil (M8015)	TPH Gas/BTEX/MTBE (8260B)	Lead Scav. (1,2 DCA & 1,2 EDB - 8260B)	EPA 8260B (Full List)	Volatile Halocarbons (EPA 8260B)	Lead (7421/239.2) TOTAL (X) W.E.T. (X)	For Lab Use Only
• MW-1	01-06-05	1350	X4		X		X		X				X		X					01
• MW-2	↓	1410	↓		↓		↓		↓				↓		↓					02
• MW-3	↓	1400	↓		↓		↓		↓				↓		↓					03

	Date	Time		
Relinquished by: Scott Robertson	01-07-05	1020	Received by:	
Relinquished by:	Date	Time	Received by:	
Relinquished by:	01-07-05	1020	Received by Laboratory: Chris Weiss KIFF ANALYTICAL	

Remarks: * Perform silica-gel clean-up on prior to TPHd analysis *

Bill to:

Distribution: White - Lab, Pink - Originator

Forms/coc 121001.fh9